TINYAKOV, Georgiy Gavrilovich, prof.; BELOUSOV, A.P., kand. khim. nauk, retsenzent; KOVALENKO, M.S., prof., retsenzent; GRISHCHENKO, A.D., dots., retsenzent; TVERDOKHLEB, G.V., dots., retsenzent; ALEKSEYEV, N.G., ass., retsenzent; KACHTOVA, L.A., ass., retsenzent; SERAYA, M.P., ispolnyayushchiy obyazannosti ass., retsenzent; KOSSOVA, O.N., red.; SOKOLOVA, I.A., tekhn. red.

[Microstructure of milk and milk products] Mikrostruktura moloka i molochnykh produktov. Moskva, Pishchepromizdat, 1963. 177 p. (MIRA 16:9)

1. Prepodavateli Leningradskogo tekhnologicheskogo instituta kholodil'noy promyshlennosti (for Kovalenko, Grishchenko, Tverdokhleb, Alekseyev, Kachtova, Seraya).
(Dairy products--Analysis and examination)

VERGELESOV, V.M.; BELOUSOV, A.P.

Polymorphism of certain triglycerides of higher fatty acids and of natural mixtures of triglycerides. Zhur. fiz. khim. 37 no.9:1995-2000 S '63. (MIRA 16:12)

1. Fiziko-khimicheskaya laboratoriya TSentral'nogo nauchno-issledovatel'skogo instituta maslodel'noy i syrodel'noy promyshlennosti.

VERGELESOV, V.M.; BELOUSOV, A.P.; FAL'K, Ye.Yu.; IL'CHENKO, E.A.; GERASIMOVA, Zh.I.

Polymorphic transformations in some natural fats with complex composition. Izv. vys. ucheb. zav.; pishch. tekh. no.6:48-54 '63. (MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut myasomolochnoy promyshlennosti i Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91737

Author : Belousov, A.S.

Inst : Azerbaydzhan Cotton Scientific Research Institute, AS Uzbek SSR

Title : The Effect of Spacing and Distribution of Plants on the Cotton Yield.

Orig Pub : V sb.: Ref. nauchno-issled. rabot po khlopkovodstvu. Tashkent AN UzSSR, 1957, 78-87.

Abstract : In the Azerbaydzhan Cotton Scientific Research Institute studies have been conducted for a numbers of years on the root beds of cotton varieties growing in rayon having different soils and climates and different methods of plant arrangement. The narrowing spaces between rows with the

Card 1/3

oo

Country : USSR

Category : CULTIVATED PLANTS. COMMERCIAL. Oleiferous. Sugar-Bearing.

Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-960339

Author : Balousov, A.[illegible].

Institu.. : AS Azerbaydzhan SSR

Title : The Effectiveness of Planting Cotton by Intercropping and Square-Pocket Sowing

Orig. Pub. : Tr. 1-y nauhon. sessii Soveta po koordinatsii AN AzerbSSR. Baku, AN AzerbSSR, 1957, 156-165

Abstract : Investigations of the Azerbaydzhan Cotton Scientific Research Institute made in the various climatic zones of the Azerbaydzhan SSR have shown that the maximum raw cotton yield boost was gotten by planting in tight spaces between the rows at 45 and 50 cm. The yield increase consisted of from 3 to 8.5 centners/ha. The number of plants in 1 ha. in relation to the soil fertility comprised 80-110 thousand; on soils with low fertility having gravel underlying quite closely, it was

Card: 1/2

Card: 2/2

COUNTRY : USSR
CATEGORY : Cultivated Plants. Industrial, Oleiferous, Sugar. M

ABS. JOUR. : RZhBiol., No. 23 1958, No. 104753

AUTHOR : Belousov, A. S., Khachaturov, N. A.
INST. : Azerbaydzhan Scientific Research Institute of Cotton *)
TITLE : Securing Uniform Germination of Cotton Plant on the Heavy Soils of Shirvan'.

ORIG. PUB. : Tr. 1-y nauchn. sessii dovete po koordinatsii AN azerbSSR, Baku, AN AzerbSSR, 1957, 175-184

ABSTRACT : A survey of studies on the causes of crust formation on the cotton fields in Shirvan'. Data of Azerbaydzhan Scientific Research Institute are cited on the effectiveness of planting cotton on ridges in the conditions of badly-crusting heavy sierozem soils. Experiments were conducted during 1952-1953 under field and laboratory conditions at Shirvan' Composite Zonal Experiment Station and at the kolhoz of Udzhrskiy rayon. In comparison with the

*) Growing

Card: 1/2

USSR/Soil Science - Tillage. Amelioration. Erosion. J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1404

Author : Belousov, A.S.

Inst : Azerbaydzhan Scientific Research Institute of Cotton Raising

Title : Problem of Plowing Without a Moldboard

Orig Pub : Byul. nauchno-tekhn. inform. Azerb. n.-i. in-ta khlopkovodstva, 1957, No 2, 59-62

Abstract : Application of moldboardless plowing on 35 - 45 cm in Azerbaydzhan gave excellent results only on heavily tilled lands of heavy texture after a perennial grass cover, some decrease in cotton productivity was noted subsequently. Experiments were conducted on light chestnut soils of the Central Experimental Station of the Azerbaydzhan Scientific Research Institute of Cotton Raising and on

Card 1/2

USSR/Soil Science - Tillage, Amelioration. Erosion. J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1404

USSR/Technical Crops. Oil Plants. Sugar Plants. M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77755.

Author : Belousov, A.S.
Inst
Title : Formation of Crop Rotations in the Cotton-Growing Regions of the Azerbaydzhan SSR.

Orig Pub: V sb.: Materily Ob"yedin. nauchn. sessii po khlopkovodstvu, T.I. Tashkent, Gosizdat UzSSR, 1958, 301-310.

Abstract: No abstract.

Card : 1/1

BELOUSOV, A. S.

Belousov, A. S. -- "The Question of So-Called Normal Acidity of the Gastric Contents." Central Inst for the Advanced Training of Physicians, Moscow, 1955 (Dissertation for the Degree of Candidate in Medical Sciences)

SO; Knizhnaya Letopis', No. 24, Moscow, Jun 55, pp 91-104

BELOUSOV, A.S., kand.med.nauk, podpolkovnik med. sluzhby (Moskva)

"Normal" acidity of the stomach contents. Vrach.delo no.9:913-918
(MIRA 11:10)

(STOMACH—SECRETIONS)

BELOUSOV, A.S., podpolkovnik med. sluzhby, kand. med. nauk

Secretory and evacuatory function of the stomach in healthy subjects on normal nutrition. Voen. med. zhur. no.3:29-32 Mr '58.
(STOMACH, physiol. (MIRA 12:7)
secretory & evacuative funct. in healthy subjects in conditions of normal nutrition (Rus))

BELOUSOV, A.S., kand. med. nauk

Ante cibum gastric secretion in normal subjects. Sov. med. 23 no.3: 22-24 Mr '59. (MIRA 12:4)

(GASTRIC JUICE
secretion, preprindial, in normal cond. (Rus))

BELOUSOV, A.S., kand.med.nauk

Effect of changes in nutritional quality on gastric digestion in normal human subjects. Terap.arkh. 31 no.6:72-78 Je '59. (MIRA 12:9)

1. Iz 2-y kafedry terapii (zav. - prof.B.Ye.Votchal) TSentral'nogo instituta usovershenstvovaniya vrachey.

(FOOD, effects,
on gastric digestion in normal cond. (Rus))
(STOMACH, physiol.
eff. of food on digestion in normal cond. (Rus))

LEVIN, G.L., dotsent; BELOUSOV, A.S., kand.med.nauk (Moskva)

Effect of tropacin on the secretory and evacuation activities of the stomach in patients with peptic ulcer. Klin.med. 39 no.2:56-58 F '61. (MIRA 14:3)

1. Iz 2-y kafedry terapii (zav. - prof. B.Ye. Votchal) Tsentral'nogo instituta usovershenstvovaniya vrachey na baze Klinicheskoy bol'nitsy imeni S.P. Botkina.
(PEPTIC ULCER) (STOMACH) (SPASMOLYTICS)

BARSKIY, Ye.B., akademik; SORIN, A.M., BELOUSOV, A.S.; ZHUKOV, Yu.S.; DIMANIS, V.I.

Radiotelemetric investigation of temperature in the digestive tract of man. Dokl. AN SSSR 149 no.5:1213-1216 Ap '63. (MIRA 16:5)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR i Terapevticheskaya klinika Tsentral'nogo instituta usovershenstvovaniya vrachey. 2. AN UkrSSR (for Barskiy).
(ALIMENTARY CANAL) (BODY TEMPERATURE)
(TELEMETER (PHYSIOLOGICAL APPARATUS))

BELOUSOV, A.S.

Electrogastrographic variants in healthy persons during digestion. Nov. med. tekh. no.5:72-82 '61. (MIRA 17:6)

1. TSentral'nyy institut usovershenstvovaniya vrachey.

ACCESSION NR: AP4012882 S/0248/64/000/002/0071/0078

AUTHOR: Belousov, A. S. (Moscow); Malkiman, I. I. (Moscow); Sorin, A. M. (Leningrad)

TITLE: Radiotelemetric study of alimentary canal functions

SOURCE: AMN SSSR. Vestnik, no. 2, 1964, 71-78

TOPIC TAGS: radiotelemetry, digestive tract, alimentary canal, miniature transmitter, endoradiocapsule, barometry, thermometry, pH measurement

ABSTRACT: Studies are described, conducted since 1961 by a team of Leningrad engineers in cooperation with the Institut normal'noy i patologicheskoy fiziologii AMN SSSR (Institute of Normal and Pathological Physiology), in which tiny radiotelemetric devices were developed and inserted in the alimentary canal to detect disorders. These devices are miniature cylindrical radio transmitters which consist of a pickup, a high frequency electromagnetic wave generator, and a power source. Via an antenna placed close to the patient and a radioreceiver, the waves are amplified and demodulated by a frequency discriminator so that the low-frequency component of the signal which is characteristic of the disorder is singled out. Endoradiocapsules have been produced for recording pH, pressure, and temperature in the stomach and intestines (overall dimensions: height - 18-20 mm,

Card 1/2

ACCESSION NR: AP4012882

diameter - 8 mm, and weight - 2 g). The development of these devices and their clinical application in detecting cancer, colitis, etc. are surveyed at length. It is believed that the development of further types of these capsules with suitable pickups would extend the scope of their application to the measurement of enzymatic activity, Cl-ion concentration, ionizing radiation, O_2 and CO_2 partial pressure, the presence of blood, and other characteristics. Orig. art. has: 4 figures and 7 graphs.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 02Mar64	ENCL: 00
SUB CODE: AM	NO REF SOV: 000	OTHER: 000

Card 2/2

ACCESSION NR: AP4041351 S/0248/64/000/006/0075/0081

AUTHOR: Votchal, B. Ye.; Belousov, A. S.; Zvyagina, L. N.; Braytseva, N. M.

TITLE: Radiotelemetric study of temperatures in the human stomach and intestine in normal and pathological conditions

SOURCE: AMN SSSR. Vestnik, no. 6, 1964, 75-81

TOPIC TAGS: radiotelemetry, temperature radiotelemetry, stomach, radiocapsule, gastrointestinal tract

ABSTRACT: Data derived from investigations of the human digestive tract with the aid of a temperature-measuring radiocapsule are presented. Temperature readings were obtained in 30 healthy persons and 57 patients suffering from various disorders of the digestive tract, including inflammatory and noninflammatory conditions. The radiocapsule method permitted the authors to detect two types of digestive tract temperature curves in healthy subjects — one relatively high, on the order of 36.8 to 38.6C and the other relatively low, on the order of 36.8 to 37.8C; that is, hyperthermal and hypothermal cases.

Card 1/3

ACCESSION NR: AP4041351

Repeated attempts to associate changes in temperature in the digestive tract with the presence of acute cholecystitis or cancerous ulcers were unsuccessful. Since the temperature in different parts of the digestive tracts of healthy persons varied as much as 1.5C, the presence of acute or chronic inflammation processes was indicated by the shape of the curve rather than by absolute temperature values. The circulation of the blood in the stomachs of healthy and sick people was studied by having the subjects drink hot or cold water, then noting the change in internal temperature and its restoration to previous levels. In addition, hot or cold water was injected directly into the stomach in order to determine circulation in the stomach wall. The role of the temperature factor in the evacuant function of the stomachs of healthy and diseased subjects was found to be very important, along with the pH value of the contents of the stomach. Thus, the use of radiocapsules is a promising method for investigating the function of the digestive tract. Orig. art. has: 5 figures.

ASSOCIATION: Tsentral'nyy institut usovershenstvovaniya vrachey, Moscow (Central Institute for Upgrading Physicians)

Card 2/3

ACCESSION NR: AP4038532 S/0020/64/156/003/0719/0720

AUTHOR: Babskiy, Ye. B.; (Academician); Belousov, A. S.; Malkiman, I. I.; Nesterova, A. P.; Sorin, A. S.

TITLE: Application of radiotelemetry for investigation of the evacuating function of the stomach

SOURCE: AN SSSR. Doklady*, v. 156, no. 3, 1964, 719-720

TOPIC TAGS: radiotelemetry, stomach evacuation function, physiology, duodenum, stomach ulcer

ABSTRACT: The authors have previously described (DAN 156, #1 (1964)) a method for investigation of pH of the content of the stomach and intestines by a radio-capsule. In the present paper, they compare the recording of pH of the duodenum of healthy people with that of people with ulcers, taken both on empty stomach and after a breakfast of bread. The pH content follows in time a different pattern in healthy and in ill people. The method permits the investigation of the stomach evacuation in people in a similar way as it is done in dogs with the fistula of the duodenum. Orig. art. has: 2 figures.

Card 1/2

ACCESSION NR: AP4038532

ASSOCIATION: Institut normal'noy i patologicheskoy fisiologii Akademii meditzinskikh nauk SSSR (Institute for Normal and Pathological Physiology). Vtoraya terapevticheskaya Klinika Central'nogo instituta usovershenstvovaniya vrechey (Second Therapeutic Clinic of the Central Institute for the Advancement of Physicians)

SUBMITTED: 27Feb64 DATE ACQ: 09Jun64 ENCL: 00

SUB CODE: LS NO REF SOV: 001 OTHER: 000

Card 2/2

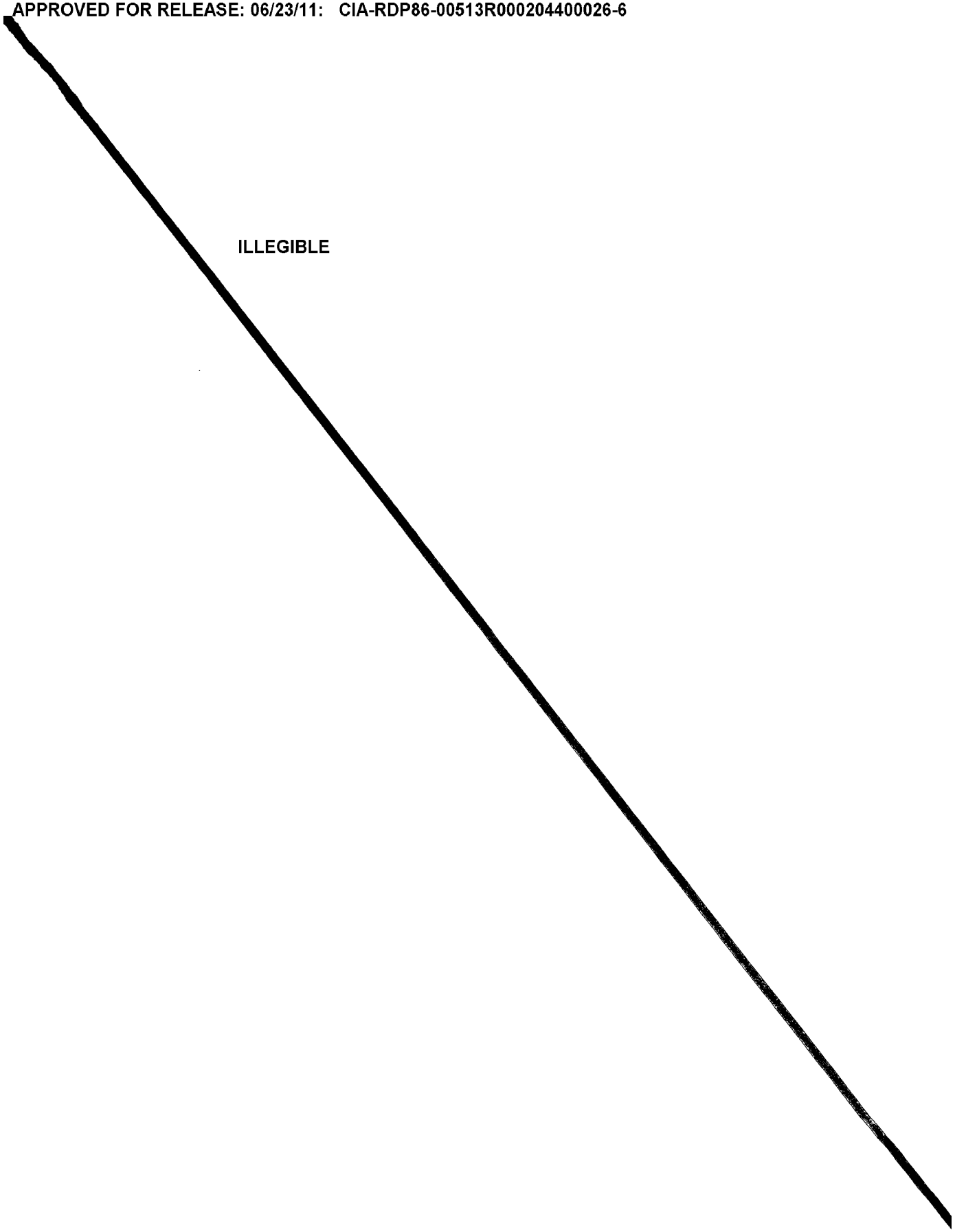
BABSKIY, Ye.B., akademik; SORIN, A.M.; BELOUSOV, A.S.; LIMANIS, V.I.; MALKIMAN, I.I.

Radiotelemetric study of the pressure inside the human digestive tract. Dokl. AN SSSR 158 no.4:993-996 O '64.

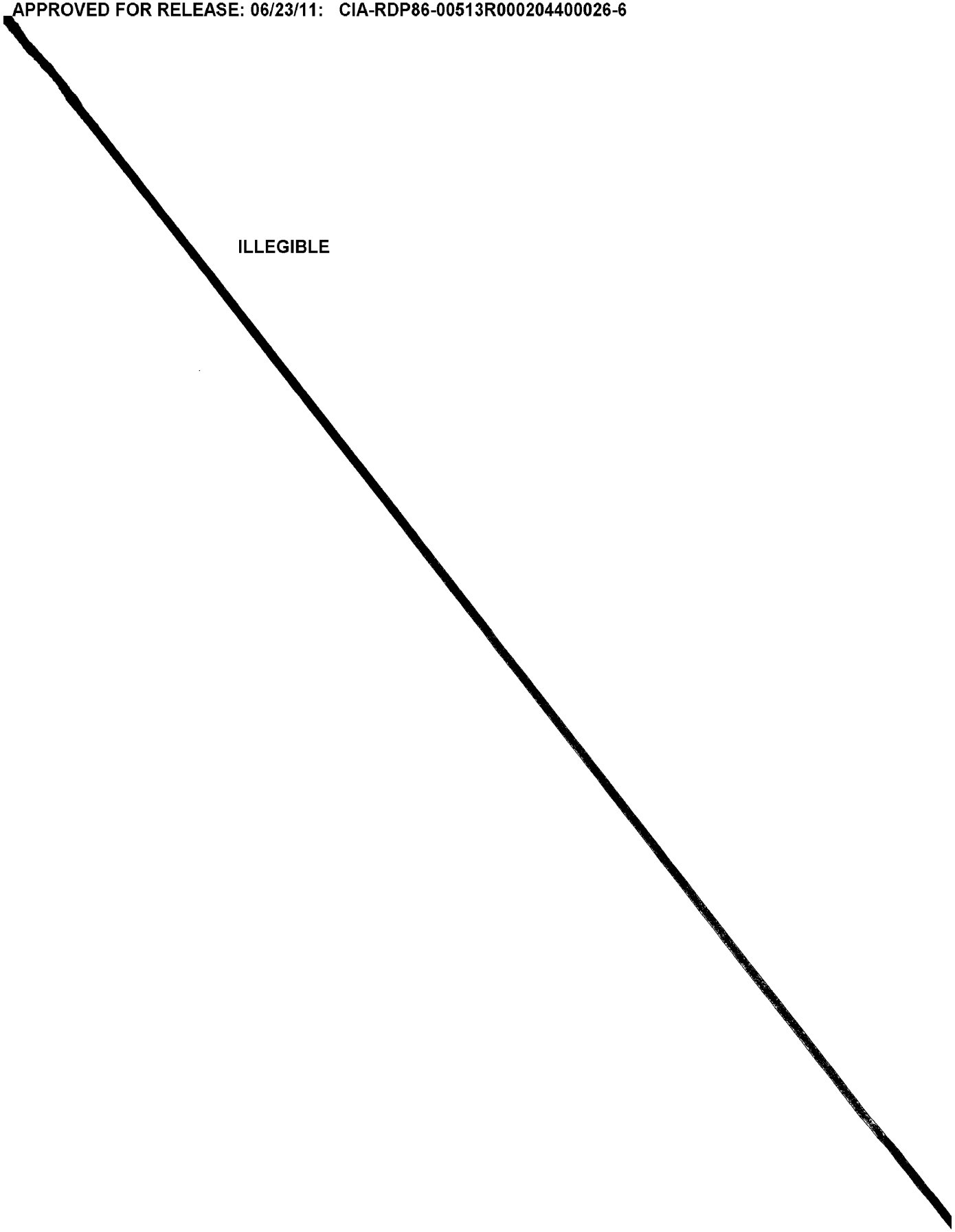
(MIRA 17:11)

1. Institut normal'noy i patologicheskiy fiziologii AMN SSSR i TSentral'nyy institut usovershenstvovaniya vrachey. 2. AN UkrSSR (for Babskiy).

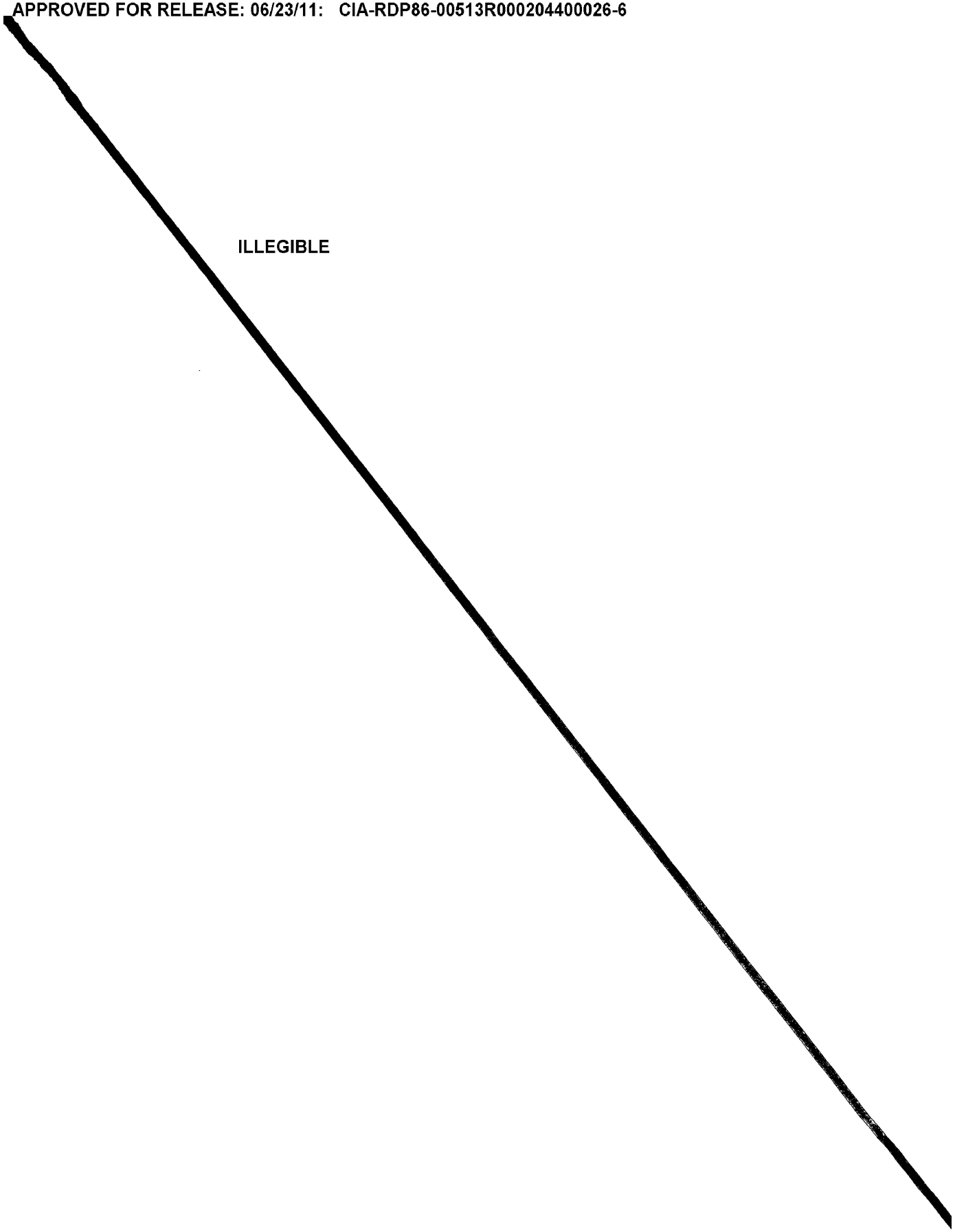
ILLEGIBLE

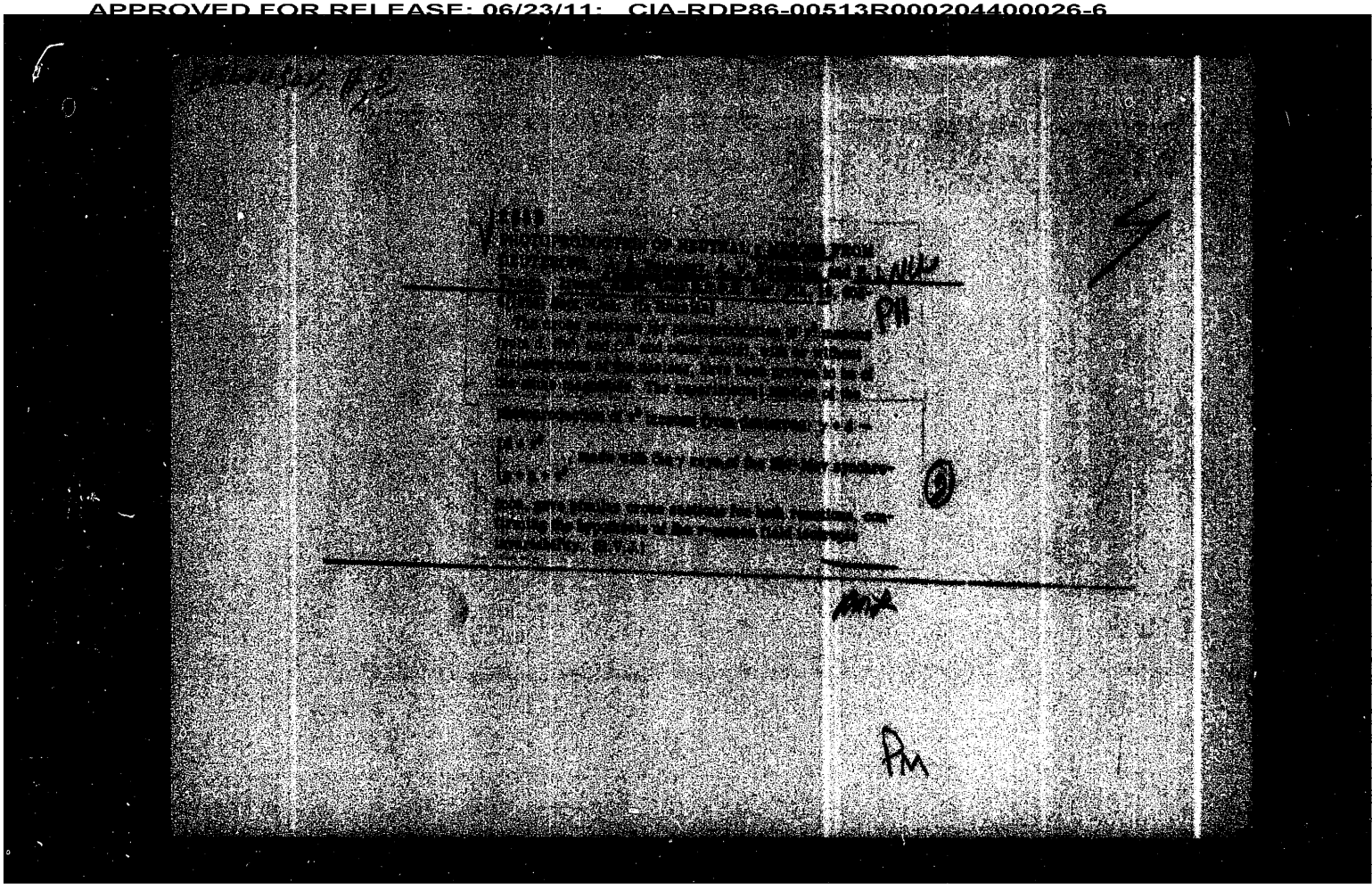


ILLEGIBLE



ILLEGIBLE





USSR/Physics - π^0 mesons

Card 1/1 Pub. 22 - 18/54

Authors : Belousov, A. S.; Kutsenko, A. V.; and Tamm, Ye. I.

Title : The photo-generating process of π^0 mesons on deuterons

Periodical : Dok. AN SSSR 102/5, 921-923, June 11, 1955

Abstract : The photo-generating of neutral (π^0) mesons on deuterons was investigated. The following reactions were conducted $\gamma + d \rightarrow \begin{cases} d + \pi^0, \\ p + n + \pi^0. \end{cases}$ The experiments were intended to prove the hypothesis of isotopic invariance. Four references: 1 USA and 3 USSR (1950-1954). Diagram; graph.

Institution : The Acad. of Sc., USSR, P. N. Lebedev Physical Institute

Presented by : Academician V. N. Kondrat'ev, February 17, 1955

BELOUSOV, A.S., POPOVA, V.M., SEMASHKO, N.G., SHITOV, E.V., TAMM, Ye. I.,, VEKSLER, V.I., YAGUDINA, F.R.

"Photoproduction of Pions Complex Nuclei," paper presented at CERN Symposium, 1956, appearing in Nuclear Instruments, No. 1, pp. 21-30, 1957

Belousov A.S

AUTHORS: Belousov, A.S., and Delone, N.B. (Moscow) 47-5-2/16

TITLE: Forty Years of Soviet Physics (Sorok let sovetskoy fiziki)

PERIODICAL: Fizika v Shkole, September - October 1957, No 5, pp 9-18 (USSR)

ABSTRACT: The article points to the achievements in industry, agriculture, science and culture since the October Revolution. The article mentions the world's first atomic power plant built in the USSR under the direction of D.I. Blokhintsev, and gives a historical review of the most important discoveries of Soviet physicists. It calls attention to powerful atomic power plants which are being constructed, to an atomic icebreaker and atomic locomotives under design, and also to a powerful atomic weapon. At present, the Soviet physicists work on humanity's most important problem - the realization of the controlled thermonuclear reaction. The article further points to the world's largest phasotron and synchrophasotron, at the USSR United Institute of Nuclear Research (Ob'yedinënnyy institut yadernykh issledovaniy). The phasotron accelerates protons to an energy of 680 Mev. The synchrophasotron drives the protons to an energy of 10 Bev while the synchrotron at the Physical Institute of the USSR Academy of Science (Fizicheskiy institut AN SSSR) accelerates electrons to an energy of 265 Mev. The

Card 1/3

article mentions the so-called Cherenkov radiation discovered by P.A. Cherenkov. It was proved that this radiation is caused by second electrons arising in the substance under the influence of γ-rays. It further hints to the important role played by D.S. Rozhdestvenskiyin the development of Soviet optics. He became known for his classical researches on anomalous dispersion. The next section deals with physics of low temperatures, and the researches of P.L. Kapitsa and L.D. Landau with helium II which led to the discovery of superfluid helium, one of the two components of helium II. The discovery of the phenomenon of superfluidity creates a new possibility for approximating absolute zero in temperature. Another section deals with the theoretical and experimental researches by A.F. Ioffe on the rectifying property of semi-conductors which served as a basis for making crystal diodes and triodes, and replaced electron tubes in several technological branches. The discovery of ferroelectricity by I.V. Kurchatov and P.P. Kobeko is regarded as one of the basic achievements in the physics of dielectrics. It proved that within some substances (f.i. Seignette's salt) there are fields with an aligned electric moment. In many respects the phenomenon of ferroelectricity is analogous to ferromagnetism. Ferroelectricity

finds diverse technological applications. Reference is also made to the connection between the physics of solids and the theory of liquids developed by Ya.I. Frenkel. The fact that atom separation in solid and liquid bodies is of the same order of magnitude, served as a basis for this theory. Soviet physicists have also carefully studied magnetic phenomena, and the article refers to the discovery of paramagnetic resonance by Ye.K Zavoyskiy as an important event in this science and the science of the structure of matter. Section VII deals with the theory of non-linear oscillations and emphasizes L.I. Mandel'shtam's achievements in this field. It was he and N.D. Papaleksi who discovered the resonance of the second type when examining the weak non-linear systems. The last section of the article handles theoretical physics in particular the study of the laws of space and time, and mentions the results obtained by A.A. Fridman. His theory leads to an expanding universe.

AVAILABLE: Library of Congress

Card 3/3

BELOUSOV, A S

AUTHOR: BELOUSOV,A.S., TAMM,E.I., SHITOV,E.V. PA - 2331

TITLE: Photoproduction of π^0-Mesons on Complex Nuclei. (Fotorozhdeniye π^0-mezonov na slozhnykh yadrakh, Russian).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 112, Nr 6, pp 1017-1019, (U.S.S.R.).

Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: The scheme of the experimental ordre is illustrated. Measurements were carried out on the sychrotron of the Physical Institute of the Academy of Science of the U.S.S.R. A bundle of the γ-rays of the synchrotron was collimated, after which it impinged on the target to be investigated. The γ-quanta originating from the decay of the neutral pions were recorded by means of a telescope consisting of four scintillation-counters. One counter was connected in anti-coincidence and three in conincidence. All counters contained liquid scintillators. (a solution of terphenyl in oxylol) Scintillations were recorded by means of a photomultiplier FEU - 19. Measurements were carried out with an energy of 265 MeV on targets of Li, C, Al, Cu, Cd, Pb, and with an energy of 200 MeV on the same targets with the exception of Li. Measuring results are illustrated in form of a diagram: At the energy of 265 MeV all points within the range of measuring accuracy (3%) are located on the curve corresponding to the dependence $\sigma \sim A^{2/3}$. At 200 MeV the rule $\sigma \sim A^{2/3}$ holds good with an accuracy of 10%, and only the point for Pb lies above the curve. This deviation may be due to

Photoproduction of π^0-Mesons on Complex Nuclei.

the contribution of the THOMSON scattering on the nuclei the cross section of which depends considerably on the nuclear charge number of the material of the target. The same reason prevented the measuring of the cross section of the photoproduction of neutral pions on nuclei (at energies fo the gamma-rays which are near the threshold of the photoproduction of the mesons) by recording the mesons by means of the individual gamma quanta of the decay. According to the results obtained the character of the dependence of the cross section of the production of neutral pions on nuclei of the nuclear charge number remains unchanged at energies of 310, 265, and 200 MeV. The maximum of the energy spectrum, however, shifts from 100 to 20 MeV. The results obtained cannot be explained by a reabsorption of the neutral pions produced in the interior of the nuclei. A rival process probably exists which suppresses the production of mesons within the nuclei and which leads to a production of mesons on the surface.
(2 illustrations).

ASSOCIATION: Not given.
PRESENTED BY: Member of the Academy A.P.ALEKSANOROV.
SUBMITTED: 28.9.1956
AVAILABLE: Library of Congress.
Card 2/2

21 (0)

AUTHORS: Belousov, A. S., Rusakov, S. V., Tamm, Ye. I. SOV/56-35-2-7/60

TITLE: The Photoproduction of Slow π^0-Mesons on Complex Nuclei (Fotoobrazovaniye medlennykh π^0-mezonov na slozhnykh yadrakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 2, pp 355-363 (USSR)

ABSTRACT: The authors investigate the dependence of the cross section for the photoproduction of slow pions ($E_\pi \sim 10$ MeV) on the atomic number of the target nuclei. As shown by a number of earlier papers, it holds that $\sigma \sim A^{2/3}$ and $\sigma \approx \sigma_0 \eta \left[3\lambda/4r_0\right] A^{2/3}$ (Refs 1 - 8), where σ_0 is the meson-production cross section on the free nucleon; the factor η is specific for the binding of nucleons in the nucleus, and λ is determined by means of experiments concerning the interaction of π^0-mesons with the nucleus. The experiments were carried out on the synchrotron of the FIAN with maximum γ-energies of 265 and 210 MeV. Experimental arrangement: The γ-rays passed through

Card 1/3

a monitor-ionization chamber, through the gap of two lead collimeters, after which they hit the target. Vertical to the direction of the γ-rays there was the telescope system consisting of a carbon filter (of 6 cm thickness), a lead converter (of 5 mm thickness), a scintillation counter aluminum absorber (2 cm), and a Cherenkov counter. The scintillator had the form of a disk (diameter 7 cm, thickness 3 cm) and consisted of a solution of terphenyl in toluene (4g/l). The radiator of the Cherenkov-counter was a cylindrical vessel (diameter 6 cm, height 12 cm), which was filled with distilled water. All counters were fitted with photomultipliers FEU-33. The measured dependence of the π^0-yield of A is given for the two E_γ^{max}-values in diagrams, viz. for C, Al, Cu, Mo, Cd, and Pb (Figs 4 - 5). Figures 6 and 7 show the dependence of the π^0-yield on E_γ^{max} for C- and Pb-targets. The values measured agree with the $A^{2/3}$-law. In conclusion the authors thank engineers P. N. Shareyko and A. A. Rudenko for the construction of the apparatus used for the experiments, and also Professor P. A. Cherenkov and

Professor V. I. Veksler for the interest they displayed and for their advice, and finally also A. D. Makov for his assistance in carrying out the experiments. There are 7 figures and 24 references, 5 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev, AS USSR)

SUBMITTED: March 13, 1958

BELOUSOV, A. S., Candidate of Phys-Math Sci (diss) -- "The photo-formation of neutral mesons on nuclei, and a model of the surface formation of mesons". Moscow, 1959. 7 pp (Acad Sci USSR, Phys Inst im P. N. Lebedev), 110 copies (KL, No 20, 1959, 109)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204400026-6

21(7)

AUTHORS: Belousov, A. S., Govorkov, B. B., Gol'danskiy, V. I. SOV/56-36-1-33/62

TITLE: A Generalized Form of the Dependence of the Cross Section of the π [illegible] on Complex Nuclei Upon the Number of Nucleons (Obobshchennaya zavisimosti secheniy fotorozhdeniya π-mezonov na slozhnykh yadrakh ot chisla nuklonov)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 1, pp 244-248 (USSR)

ABSTRACT: In the present report the attempt is made to take into account the influence exercised by the simultaneous absorption of mesons by two nucleons at the moment of their production upon the dependence upon A of the cross section σ_π of neutral pion production in as simple a manner as possible. First, this dependence is investigated for a concrete wave function and for the case of uniform thickness of the nucleons in the nucleus. It is assumed to be necessary and sufficient for the reabsorption of a meson at the instant of its [illegible] by a two-nucleon group that the nucleon pair be in a distance of $r \leqslant 1 = \hbar/\mu c$. For the nucleon pairs the wave function of

Card 1/4

A Generalized Form of the Dependence of the Cross Section of the π^- [illegible] on Complex Nuclei Upon the Number of Nucleons

SOV/56-36-1-33/62

Chu and Gol'dberger is used: $\psi(p) = \sqrt{\alpha\hbar}/\pi(\alpha^2\hbar^2 + p^2)$, where $\hbar^2\alpha^2/2m = 18$ Mev holds. Here m denotes the mass of the nucleon. A diagram shows the dependence of the influence of "pion [illegible] occurring on the surface" (i. e. a pion [illegible] in the surface layer having the thickness 1) upon the mass number A of the nucleus. In addition to the absorption of mesons at the instant of their production, also the influence exercised by the following reabsorption in the nucleus must be taken into account. The third chapter of this paper deals with the dependence of a cross section σ_{π^-} on A for Fermi's distribution of nucleon density in the nucleus. Consideration of the various forms of nucleon density distribution in the nucleus would complicate all calculations considerably. The authors therefore endeavored to take the distribution of nucleon density into account in a purely phenomenological manner without any presuppositions as to the concrete form of the two-nucleon wave function. By assuming a certain character of nucleon density distribution in the nucleus and a certain

Card 2/4

A Generalized Form of the Dependence of the Cross Section of the π^--Meson Photocreation on Complex Nuclei Upon the Number of Nucleons

SOV/56-36-1-33/62

probability of the absorption of the meson at the instant of its production by this density, it is possible to determine the dependence of the cross section σ_{π^0} on A. This dependence contains the parameter f_0, i. e. the probability of the production of a meson in the center of the nucleus without two-nucleon absorption. Next, an expression is derived for the probability of the photoproduction of a meson, averaged over the entire nucleus. Also in the formula it is necessary to introduce factors by which the usual meson reabsorption is taken into account. The values of f_0 corresponding to the experiment and the form of the dependence $\sigma_{\pi^0} = f(A)$ agree with the values obtained in the second part of this paper. In conclusion, an expression is given for the production of fast proton pairs due to the reabsorption of positive pions. The authors thank Ye. M. Leykin for discussing their work. There are 3 figures and 9 references, 3 of which are Soviet.

Card 3/4

A Generalized Form of the Dependence of the Cross Section of the π -Meson Photocreation on Complex Nuclei Upon the Number of Nucleons

SOV/56-36-1-33/62

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences, USSR)

SUBMITTED: July 10, 1958

Card 4/4

24.6700, 16.8100

7696
SOV/56-37-6-16/56

AUTHORS: Belousov, A. S., Rusakov, S. V, Tamm, E. I., and Cherenkov, P. A.

TITIE: Search for Particles with Masses Between 6 and 25 Electron Masses

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 6, pp 1613-1618 (USSR)

ABSTRACT: Experiments were carried out for the purpose of elucidating the question whether γ-quanta generate particles with mass lying between 6 and 25 electron masses according to the production cross sections as predicted by the electromagnetic theory of pair production. For this investigation fast coincidence circuits were used to measure the time of flight of particles with a given momentum between two scintillation counters. The following diagram illustrates the geometry of the setup:

Card 1/5

Search for Particles with Masses Between 6 and 25 Electron Masses

7697
SOV/56-37-6-16/55

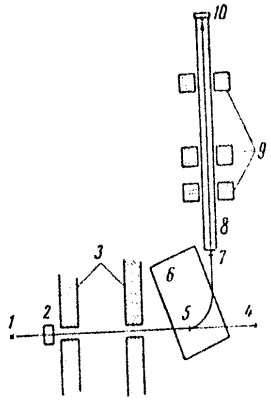


Fig. 1. Geometry of the experiment setup: (1) synchrotron target; (2) monitor chamber; (3) lead collimator; (4) direction of the bremsstrahlung beam; (5) lead target; (6) magnet; (7) scintillation counter; (8) vacuum tube; (9) focusing lenses; (10) scintillation counter.

Card 2/5

Search for Particles with Masses Between 6 and 25 Electron Masses

76976
SOV/56-37-6-16/55

The irradiation of the lead target by bremsstrahlung produced particles pairs. The separation of particles with a proper momentum was achieved by means of the magnetic field. The counters in the path of the particles at a distance S made it possible to measure the period separating the particles on their passage through the first and the second counter. The difference in the passage time of the particle with mass M and an electron having identical momentum was obtained from the relation $\tau_o = S(1-\beta_m)/c\beta_M$. Particles with mass M can be identified only when $N_{background}/N_e < N_M/N_e$, where, N_M - counting rate at the maximum in the curve of captured collisions for particles with mass M. Experiments were made with Pb target 0.5 thick for M = 8 and 12 m_e and 0.25 mm for M = 16 and 20 m_e. The theoretical coincidence

Card 3/5

Search for Particles with Masses Between 6 and 25 Electron Masses

76976
SOV/56-37-6-16/55

counting rate was compared with the experimental rate obtained for parameters of the experimental setup corresponding to the registration of particles with the expected mass. In each set of experiments the ratio of the electron counting rate to the background was also measured. The results obtained show that the cross sections for the production of particles by γ-quanta with unit charge, spin 1/2 and masses lying between 6 and 25 m_e do not correspond to those predicted by the electromagnetic theory. The work was performed under the guidance of V. I. Veksler; P. N. Shareyko, A. A. Rudenko, A. D. Makov made contributions in the course of this work. There is a schematic diagram of the setup; 2 tables; 2 graphs; and 14 references, 9 Soviet, 3 U.K., 1 French, 1 U.S. The U.S. and U.K. references are: W. Davies, D. Shaw. Proc. Phys. Soc. A64, 1006, 1951; U. Jánossy, C. B. A. Melusner. Nature, 63, 181, 1949; E. W. Cowan. Science, 108, 534, 1948; D. Broadbenf, U. Jánossy.

Card 4/5

Search for Particles with Masses Between 6 and 25 Electron Masses

76976
SOV/56-37-6-[illegible]/[illegible]

Proc. Roy. Soc. 192, 364, 1948.

SUBMITTED: July 29, 1959

Card 5/5

BELOUSOV, Anatoliy S.

"Compton Scattering from Protons Above the Pion Productuon Threshold"

Paper presented at the Intl Conference on High Energy Physics, Rochester, N. Y. and/or Berkly California, 25 Aug - 16 Sep 1960.

Lebedev Institute of Physics, Moscow, USSR

S/509/60/000/007/014/014
E194/E483

15.6500 only 1583

AUTHORS: Pavlov, I.M., Belosevich, V.K. and Belousov, A.S.

TITLE: A Procedure for Assessing Wire Drawing Lubricants

PERIODICAL: Akademiya nauk SSSR. Institut metallurgii. Trudy, No.7. Moscow, 1960. pp.138-146. Metallurgiya metallovedeniye, fiziko-khimicheskiy metody issledovaniya

TEXT: This article describes a laboratory method of assessing wire drawing lubricants. The principal requirements applicable to wire drawing lubricants are first summarized. In the assessment the principal magnitudes measured were the wire drawing force and the amount of lubricant on the wire surface after drawing. The quality of the wire surface was assessed in certain cases. The tests were made on a laboratory drawbench at speed of 15 m per min. The wire drawing forces were measured with a spring dynamometer fitted with strain gauges, the outputs of which were applied through an amplifier to an oscillograph. The lubricant thickness on the surface was determined by taking samples after each draw weighing, washing with benzene and reweighing. The quality of the surface was assessed visually by examination

Card 1/9-6

A Procedure for Assessing ...

through a lens with a magnification of x5 and in some cases a profilograph type ИС-18 (IS-18) with diamond stylus was used. It was difficult to obtain uniform raw material in large quantities. For each series of tests the wire was taken from a single melt or even from a single coil. Steel of grades 08 - 10 was annealed, etched and limed. Some of the wire was tested without liming. Steel grade 50 was copper plated and covered with a layer of liquid glass. Stainless steels 1Х18Н9 (1Kh18N9) and 2Х18Н9 (2Kh18N9) were annealed (hardened) and etched and then coated with lime and salt. So far the procedure was much the same as used in practice at the "Serp i molot" works. The materials were dried before the tests. The dried lubricants were milled and sieved. The die geometry was the same in all cases, the half angle of the inlet cone being 6°30' and the length of cylindrical part $\ell = d/2$. All the dies were made of hard alloy type ВК8 (VK8). The method of finishing the dies is explained. The initial length of the wire samples was about 10 m. Both solid and liquid lubricants were applied by normal methods. The wire drawing force was measured oscillographically at ten points at intervals of

about 1,5 sec, thus giving the mean force used in calculations of the coefficient of friction. The wire drawing force itself should not be used to assess the quality of the lubricant, it is better to use the coefficient of friction, formulae for the calculation of which have been given by other authors. In view of the cone geometry used, the coefficient of friction was calculated from the following simplified formula

$$\frac{k}{p} = 2\mu_{Tp} \cdot \left(\frac{f}{F}\right)^a + \frac{b}{a}\left[1 - \left(\frac{f}{F}\right)^a\right] + 0{,}7698\left(0{,}1139 + \frac{\mu_{Tp}}{2}\right),$$

where μ_{Tp} - the coefficient of friction; k - the specific wire drawing stress; p - the mean resistance to strain; F - the cross-section of the area before drawing; f - the cross-sectional area after drawing;

$$a = \left(\frac{1}{\cos\frac{\alpha}{2}} + \frac{\mu}{\operatorname{tg}\alpha \cdot \cos\frac{\alpha}{2}} - 1\right);$$

$$b = \left(\frac{1}{\cos\frac{\alpha}{2}} + \frac{\mu}{\operatorname{tg}\alpha \cdot \cos\frac{\alpha}{2}}\right).$$

Card 3/9 6

For different values, curves of the following type may be constructed: $k/p = \Psi(\mu_{Tp})$. In practice, the value of k may be determined from the mean wire drawing stress and p may be taken as the mean of σ_o and σ_1. In each particular case the coefficient of friction is determined from the calculated value of k/p. The amount of lubricant on the surface was expressed in mg/cm^2. It was difficult to calculate the mean thickness because the specific gravity of the lubricant layer which includes the lubricant and wear products in indeterminate condition could not be determined. In addition, determinations were made of variations in wire drawing stress $(K_{max} - K_{min}) / K_{average} \times 100\%$.
Fig.3 shows typical graphs of the change in the amount of lubricant on the surface and of the coefficient of friction with increasing number of passes. The tests relate to steel lubricated with soap powder, the upper graph gives the quantity of lubricant on the surface in mg/cm^2 and the lower graph the coefficient of friction (note that rough scratches are formed after the seventh pass). So long as there is plenty of lubricant the surface of the wire is matt and profilograms of the surface give differences of about

A Procedure for Assessing ...

5 microns between the peaks and values. There are no scratches or scorings. When the amount of lubricant has become reduced, the friction usually varies little but there is a marked change in the surface finish, there may be sometimes one or two more passes without scoring or heavy scratches but with bad lubricants scratching occurs at once. As soon as scoring has commenced, the amount of lubricant varies widely and the wire drawing stresses and coefficient of friction increase, as does the variation in wire drawing effort. The values obtained with some of the lubricants when drawing steel are tabulated. It is evident that there is no direct relationship between the coefficient of friction and the stability of lubricant assessed by the number of passes. Certain changes in the coefficient of friction when the quantity of lubricant is markedly reduced shows that it is impossible to judge of the mechanism of friction from the absolute value of the coefficient of friction as certain authors do. Still less is it justified to assert that when the coefficient of friction is less than 0.05, the friction in wire drawing is of hydrodynamic type. The fact that after the layer of lubricant has become thin, with

most lubricants scratches are observed which are later converted to deep scoring indicates that in assessing the quality of wire drawing lubricant it is important to note the number of passes for the lubricant layer becomes too thin. The number of passes without heavy scratches and scoring in the presence of a thin layer of lubricant is also very important in assessing the lubricant. I.L.Perlin and S.I.Gubkin are mentioned for their contribution in this field. There are 5 figures, 1 table and 10 references: 6 Soviet-bloc and 4 non-Soviet-bloc. The two references to English language publications read as follows: R.Tourett. Wire and Wire Products. III, 30, No.3, 1955; W.M.Halliday. Wire Industry, XII, 24, No.228, 1957.

Card 6/9 6

BELOUSOV, A.S.

Problems in high-energy physics. Vest.AN SSSR 31 no.3:92-96 Mr '61. (MIRA 14:3)
(Particles(Nuclear physics))

31774
S/056/61/041/006/020/054
B102/B138

24.6600

AUTHORS: Belousov, A. S., Rusakov, S. V., Tamm, Ye. I., Tatarinskaya, L. S.

TITLE: π^0 photoproduction on deuterium at energies between 170 and 210 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1793-1803

TEXT: In experiments carried out at the synchrotron of the Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute imeni P. N. Lebedev AS USSR) the differential cross sections of the reactions

$\gamma + d \rightarrow \begin{matrix} \pi^0 + d \\ \pi^0 + p + n \end{matrix}$ were measured. They were compared with those known for the $\gamma + p \rightarrow \pi^0 + p$ reaction, in order to get data on π^0 photoproduction on neutrons. Vacuum targets from the fotomezonnaya laboratoriya FIAN (Photomeson Laboratory of the FIAN) were used, filled with liquid deuterium or

Card 1/4

hydrogen. They had an effective volume of 53 cm^3. The π^0-mesons were recorded through their decay gamma quanta by means of a three-counter scintillation telescope with ФЭУ-33 (FEU-33) photomultipliers. The fast coincidence, anticoincidence and time analyzing circuits where such that resolution was better than 10^{-8} sec. Maximum energies recorded by the five channels were 178, 186, 194, 202 and 210 Mev. The efficiency of the γ-telescope was $\gamma = \begin{cases} 0.0052 - 0.12 & \text{for } E_\gamma \leq 110 \text{ Mev} \\ 0.42 & \text{for } E_\gamma > 110 \text{ Mev} \end{cases}$ Necessary corrections did not exceed 10%. The energy dependence of the quantum yield in π^0 decay was measured at 44, 84 and 124° in the laboratory system. The measurements covered the energy ranges 170 to 210 Mev and 160 to 220 Mev at an angle of 84°. From these data the gamma emission cross sections were calculated by the method of "photon differences". Background due to random coincidences was small but that of the empty target was between 15 and 30% and caused high statistical error. The contribution from Compton effect γ-quanta was very small. The experimental

π^0 photoproduction on deuterium ...

data were compared with theory in two ways: (a) The theoretically determined cross section ratios of reactions I and II in momentum approximation were used to calculate the quantum yield ratio. (b) The angular and energy dependences of I were used to calculate decay quanta distributions. For all angles of π^0-emission the total and elastic cross section ratio of I and II was almost independent of energy. For 44 and 84° the experimental value of this ratio was much higher than the theoretical for 124° it agreed. For angles below 90° and primary gamma energies of 170-210 Mev the elastic π^0 photoproduction cross section was thus much larger than expected from momentum approximation. For a more detailed comparison between experiment and momentum-approximation theory, data of A. I. Lebedev and A. M. Baldin (Otchet FIAN, 1961) were used. All results indicate that around 200 Mev the σ_d/σ_p ratio increases rapidly. The

authors thank Engineer P. N. Shareyko for design of the electronic apparatus and A. M. Baldin and A. I. Lebedev for discussions. A paper by A. M. Baldin and B. B. Govorkov (Nucl. Phys. 13, 193, 1959) is mentioned.

Card 3/4

31774
S/056/61/041/006/020/054
B102/B138

π^0 photoproduction on deuterium ...

There are 8 figures, 1 table, and 17 references. 8 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as follows: J. C. Keck, A. V. Tollestrup, H. H. Bingham. Phys. Rev., 104, 1549, 1956;A. S. Penfold, J. E. Less. Analysis of Photo Cross Sections, University of Illinois, 1958;L. J. Koester, F. E. Mills. Phys. Rev., 105, 1900, 1957;L. S. Hyman. Ph. D. Thesis, Massachusetts Institute of Technology, 1959.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences, USSR)

SUBMITTED: July 20, 1961

Card 4/4

BELOUSOV, A. S.; RUSAKOV, S. V.; TAMM, E. I.; TATARINSKAYA, L. S.

"Photoproduction of π^--Mesons from Deuterium"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

44445

S/120/62/000/006/025/029
E073/E435

9.6150

AUTHORS: Belousov, A.S., Rusakov, S.V., Tamm, Ye.I., Tatarinskaya, L.S.

TITLE: Efficiency of a Cherenkov counter with a radiator made of lead glass for recording high-energy gamma-rays

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1962, 125

TEXT: The authors measured the efficiency of Cherenkov counters with cylindrical 100 mm diameter, 100 mm long radiators made of heavy flint (3.87 g/cm^3, refractive index 1.548; radiation element 2.38 cm, critical energy 13 MeV). The radiator was placed into an aluminium cylinder with polished internal walls. One of the faces of the radiator was optically connected with the photocathode (sensitivity in excess of 50 μA/lumen) of a photomultiplier. The efficiency was determined by means of monochromatization of a beam of bremsstrahlung; the beam diameter of the γ-quanta was the same as the diameter of the radiator. Comparison of the obtained results with data obtained for the effect of telescopes indicates that, in a number of experiments, counters of this type can reduce appreciably the time necessary

Card 1/2

for setting the required statistical accuracy, allowing considerable simplification of the instrumentation. There is 1 figure.

ASSOCIATION: Fizicheskiy institut AN SSSR
(Institute of Physics AS USSR)

SUBMITTED: February 21, 1962

S/056/62/043/003/012/063
B102/B104

AUTHORS: Belousov, A. S., Rusakov, S. V., Tamm, Ye. I.

TITLE: Low-energy photodeuterons from lithium

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 813-814

TEXT: The photodeuteron-photoproton yield ratio from targets of natural lithium exposed to the bremsstrahlung from a synchrotron was measured. The targets had been placed inside the vacuum chamber and the particles emitted were recorded, after momentum selection, on photographic plates also in the chamber. The measurements were made with maximum bremsstrahlung energies, $E_{\gamma max}$, of 160, 200, 240 and 260 Mev and 3.8 Mev $\leq E_d \leq$ 9.6 Mev, 7.6 Mev $\leq E_p \leq$ 10 Mev for emission angles of from 23 to 57°. For these values of $E_{\gamma max}$ the following yield ratios were obtained: 0.061 ± 0.009, 0.074 ± 0.012, 0.098 ± 0.012, 0.092 ± 0.012. The photoproton yield remained constant (± 3.6 %) when $E_{\gamma max}$ was changed, i.e. the photodeuteron yield

Card 1/2

S/056/62/043/003/012/063
B102/B104

Low-energy photodeuterons from...

grew with $E_{\gamma max}$. There is 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: April 11, 1962

Card 2/2

41144

S/056/62/043/004/056/061
B104/B186

24.6610

AUTHORS: Belousov, A. S., Rusakov, S. V., Tamm, Ye. I., Tatarinskaya, L. S.

TITLE: π^0-meson photoproduction in hydrogen and deuterium within the range of small angles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1550-1552

TEXT: Unlike in earlier experiments (ZhETF, 41, 1793, 1961) the authors here measured directly the differential cross sections of the processes

$$\gamma + d \longrightarrow \begin{cases} d + \pi^0 \\ n + p + \pi^0 \end{cases}, \quad \gamma + p = p + \pi^0.$$

With the aid of γ-telescopes, the π^0-mesons were determined from the two γ-quanta occurring in the decay of one π^0-meson. The differential cross sections for mean energies κ of the primary photons and mean angles θ of departure of the meson were determined as the ratios of the measured yield

Card 1/13

π^0-meson photoproduction in ...

$Y(\alpha, \theta_1, \varkappa)$ to the probability of recording one π^0-meson:

$$\frac{d\sigma}{d\Omega}(\bar{\varkappa}, \bar{\theta}_\pi) = Y(\alpha, \theta_1, \varkappa) \Big/ n \int_{\varkappa_{пор}}^{\varkappa_{max}} \int_{\Omega_\pi} N(\varkappa, \Omega_\pi) f(\varkappa) d\Omega_\pi d\varkappa; \quad (1).$$

Here the angles α and θ_1 determine the position of the telescopes, n is the number of nuclei per cm^2 of target, $f(\varkappa)$ is the spectrum of bremsstrahlung, $\varkappa_{max}$ and $\varkappa_{пор}$ are the maximum and the threshold energies of the photons, $N(\varkappa, \Omega_\pi)$ is the probability of recording one π^0-meson flying off at solid angles of between θ and $\theta + d\theta$ and produced by a meson of the energy of between $\varkappa$ and $\varkappa + d\varkappa$. For the mean values one has

$$\bar{\varkappa} = \int_{\Omega_\pi} \varkappa N(\varkappa, \Omega_\pi) d\Omega_\pi \Big/ \int_{\Omega_\pi} N(\varkappa, \Omega_\pi) d\Omega_\pi, \quad (2).$$

$$\overline{\cos\theta_\pi} = \int_{\varkappa_{пор}}^{\varkappa_{max}} \cos\theta_\pi N(\varkappa, \Omega_\pi) f(\varkappa) d\varkappa \Big/ \int_{\varkappa_{пор}}^{\varkappa_{max}} N(\varkappa, \Omega_\pi) f(\varkappa) d\varkappa.$$

Card 2/43

S/056/62/043/004/056/061
B104/B186

π^0-meson photoproduction in ...

The integrals of the functions here described were computed analytically and by the Monte-Carlo method using a computer. The present results for hydrogen at θ_π = 0, 15, and 90° ($\kappa \approx 220$ Mev) agree only with the results of the paper in which the contribution of D-waves was considered (J. S. Ball. Phys. Rev., 124, 2014, 1961). The results for deuterium at θ_π = 0° ($\kappa \approx 200$-250 Mev) agree well with experimental data. If $\kappa < 200$ Mev the experimental data exceed the theoretical by a value which is greater than two standard deviations. This deviation is probably associated with the contribution of π^0-mesons produced by scattering with charge exchange on $\pi^\pm$-mesons. There are 2 tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: July 19, 1962

Card 3/43

LEVIN, G.L.; BELOUSOV, A.S. (Moskva)

Electrogastrogram in gastric and duodenal stenosis. Klin. med. 41 no.7:51-56 Jl'63 (MIRA 16:12)

1. Iz 2-y kafedry terapii (zav. - prof. B.Ye. Votchal) TSentral'nogo instituta usovershenstvovaniya vrachey.

BABSKIY, Ye. B., akademik; SORIN, A. M.; BELOUSOV, A. S.; MALKIMAN, I. I.; NESTEROVA, A. P.

Radiotelemetric study of the pH in the digestive tract. Dokl. AN SSSR 156 no. 1:222-224 My '64. (MIRA 17:5)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR i TSentral'nyy institut usovershenstvovaniya vrachey. 2. AN UkrSSSR (for Babskiy).

BABSKIY, Ye.B., akademik; BELOUSOV, A.S.; MALKIMAN, I.I.; NESTEROVA, A.P.; SORIN, A.S.

Application of radiotelemetry in studying the evacuatory function of the stomach. Dokl. AN SSSR 156 no. 3:719-720 '64. (MIRA 17:5)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR i Vtoraya terapevticheskaya klinika TSentral'nogo instituta usovershenstvovaniya vrachey. 2. AN UkrSSSR (for Babskiy).

BELOUS, A.S.; MALKIMAN, I.I. (Moskva); SOPIN, A.M. (Leningrad)

Radiotelemetric study of the functions of the alimentary tract.
Vest. AMN SSSR 19 no.2:71-78 '64.

(MIRA 18:1)

ACC NR: AM6026119 (A) Monograph UR/

Belousov, Anatoliy Semenovich

Photomeson processes (Fotomezonnyye protsessy) Moscow, Izd-vo "Nauka", 1966. 183 p. illus., biblio., tables. (At head of title: Akademiya nauk SSSR) 7000 copies printed.

TOPIC TAGS: elementary particle, proton, meson, particle production, particle accelerator

PURPOSE AND COVERAGE: The author discusses in popular terms the physics of elementary particles, specifically that part of it which deals with the production of mesons by high-energy photons (gamma rays). He exaplains the principles underlying the operation of particle accelerators which produce high-energy beams, describes the physical experiments carried out to demonstrate the finer properties of elementary particles, traces their historical development, and examines and discusses the theory of the relationship and interaction between elementary particles. The book is intend for the non-professional reader, including students, interested in the latest developments in physics.

TABLE OF CONTENTS:

Card 1/4

ACC NR: AM6026119

Card 2/4

ACC NR: AM6026119

Card 3/4

ACC NR: AM 6026119

SUB CODE: 20/ SUBM DATE: 12Jan66/ ORIG REF: 015/

Card 4/4

BELOUSOV, A. T.

Belousov, A. T. - "On the latest work at the Motor Tractor Station," (An Interview with the Director A. T. Belousov of the Petrov. MTS, Stavrop. kray), Ogonek, 1949, No. 14, p.2

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

BELOUSOV, A. V.

Organization of technical control in factories Moskva, Gos. izd-vo obor. promyshl., 1946. 299 p. (49-51214)

TL671.28.B4

BELOUSOV, A.V.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 767 - I

BOOK Call No.: AF666972

Authors: GOSTEV, V. I. and A. V. BELOUSOV (See "Facilities")

Full Title: QUALITY CONTROL IN MACHINE SHOPS

Transliterated Title: Kontrol' kachestva produktsii v mashinostroyenii

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of Literature on Machine Building and Shipbuilding (MASHGIZ).

Date: 1955 No. pp.: 640 No. of copies: 6,000

Editorial Staff

Editors-in-Chiefs: Gostev, V. I. and Belousov, A. V.

PURPOSE: This book is written specifically for workers and inspectors of the Department of Technical Control (OTK), machine-shop foremen and supervisors. The authors, all experts in their respective fields, present the most important phases of work in technical control as practiced in the leading industrial plants or developed by the latest scientific research.

TEXT DATA

Coverage: This book presents the organization and work methods of the Departments of Technical Control (OTK), the Bureaus of Methods for Technical Control (BMTK), Sections of Technical Control (STK) and other subdivisions in minute detail. It describes the instruments and tools of inspection and their handling, and

gives specific information on inspection and control of various finished parts, units and completed mechanisms. The first part of the book discusses the fundamental principles and problems of the control units, their organization and their relation with the shop technicians. The technique of inspection and the importance of adherance to standards and measuring units are stressed. The second part of the book is devoted to the means, instruments and tools for control and inspection. The basic characteristics, application, and the calculations involved are described. The third part of the book contains information on specific technical inspections as they are carried in various shops. It describes the application of chemical analysis in the inspection of metal parts, testing with Brinel and/or Rockwell machines, the use of the Erichsen and the TsNIITMASh (Central Scientific and Research Institute of Technology and Machine Building) machines. Inspections conducted in foundries, in hot and cold stamping shops, in tool and machine assembly shops are discussed. The inspection of heat-treated parts, coils and springs, of finished parts covered with chemicals and/or metal, of rivetted units, and the final inspection and test of the assembled machines are also given. Numerous pictures, tables, drawings, charts and diagrams illustrate the text.

Kontrol' kachestva produktsii v mashinostroyenii AID 767 - I

No. of References: 76 Russian; 1935-1954.
Facilities: The list of authors: V. I. Gostev, A. V. Belousov, V. A. Polovnev, P. N. Pronin, E. M. Levenson, P. E. D'yachenko, A. D. Assonov, D. S. Abramson, R. R. Gessel'son, V. K. Teplyakov, M. S. Frenkin, S. N. Zakharov, A. L. Khudoyarov, M. I. Vesnik, G. S. Leonov, V. M. Shestopal, M. Ya. Yakhkind, G. N. Rovinskiy, I. A. Grigor'yev, N. I. Petrov.

3/3

LEVENSON, Yevgeniy Mikhaylovich; GONIKBERG, Yuriy Markovich; VVEDENSKIY, Tigriy Aleksandrovich; GIPP. B.A., inzhener, retsenzent; BELOUSOV, A.V., [illegible]zhener, redaktor; MODEL', B.I., tekhnicheskiy redaktor

[Construction of measuring devices and instruments in machine building] Konstruirovanie izmeritel'nykh prisposobleniі i instrumentov v mashinostroenii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 384 p. (MLRA 9:9)
(Measuring instruments) (Instrument industry)

BELOUSOV, A.V.; RYMAR', N.F., inshener, retsenzent; IVANOV, A.G., kandidat tekhnicheskikh nauk, redaktor; PROKOF'YEVA, L.G., redaktor izdatel'stva; UVAROVA, A.F., tekhnicheskiy redaktor.

[Organizing the work of a measuring laboratory in a machine manufacturing plant] Organizatsiia raboty izmeritel'noi laboratorii mashinostroitel'nogo zavoda. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 101 p. (MIRA 10:11)
(Mensuration)

BELOUSOV, Aleksandr Vasil'yevich; TIKHONOV, P.I., retsenzent; YAKOVLEVA, V.I., red.; SKOTNIKOVA, N.N., tekhn.red.

[Organization of technical control] Organizatsiia tekhnicheskogo kontrolia. 3., perer. izd. Moskva, Oborongiz, 1963. 297 p. (MIRA 17:2)

BELOUSOV, A.Z.

Preparation and organization of medical scientific-pedagogical personnel. Sovet. zdravookhr. 11 no.5:13-22 Sept-Oct 1952. (CLML 23:2)

1. Deputy Minister of Public Health USSR.

BELOUSOV, A.Z.

Training and distribution of scientific and pedagogic medical personnel. Cas. lek. cesk. 92 no. 5:121-126 30 Jan 1953. (CLML 24:2)

1. Of the Ministry of Health of USSR.

BELOUSOV, A. Z.

Dissertation: "The Organization of the Soviet Public Health Service in the City of Moscow in 1917-1920." Cand Med Sci, Acad Med Sci USSR, 23 Jun 54. (Vechernyaya Moskva, Moscow, 14 Jun 54)

SO: SUM 318, 23 Dec 1954

BELOUSOV, A.Z.; NOTKIN, Ye.L. (Moskva)

P.I.Kurkin, a classic figure in public health statistics; on the 100th anniversary of his birth. Zdrav.Ros.Feder. 2 no.3:25-30 Mr '58. (MIRA 11:3)

(MEDICAL STATISTICS) (KURKIN, PETR IVANOVICH, 1858-1934)

BELOUSOV, A.Z., kand.med.nauk, NOVIKOV, Yu.V., ORESHKO, V.F., doktor tekhnn nauk, POLIVODA, B.I., inzh.-fizik.

Radioactivity of the air conditioned by aerosols [with summary in English. Gig. i San. 23 no.10:17-22 O '58 (MIRA 11:11)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.
(AIR,
natural radioactivity of air, determ. of aerosols (Rus))
(RADIOACTIVITY,
same (Rus))

BELOUSOV, A.Z., NOVIKOV, Yu.V., ORESHKO, V.F., POLIVODA, B.I.

Method of determining natural atmospheric radioactivity due to aerosols. Gin. i san. 23 no.10:64-69 O '58 (MIRA 11:11)

1. Iz Moskovskogo nauchno-issledovatel'skogo sanitarii i gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.
(AIR,
natural radioactive aerosols, method of determ. (Rus))
(RADIOACTIVITY,
radioactive aerosols in air, method of determ. (Rus))

BELOUSOV, A. Z., BELOSTOTSKAYA, YE. M., SHAROVA, N.A., DEMINA, E. M., TELESHOV, V. A.

"Hygienic characteristics of polytechnical teaching in a rural school."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

ORESHKO, V.F., prof.; BELOUSOV, A.Z., kand.med.nauk; NOVIKOV, Yu.V., kand.med.nauk; POLIVODA, B.I.

Aspiration method for the determination of radioactive aerosols in the atmosphere and the results of the investigation. Pred. dop. kontsent. atmosf. zagr. no. 4:102-130 '60. (MIRA 13:10)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni F.F. Erismana.
(RADIOACTIVITY) (AIR--POLLUTION) (AIR--ANALYSIS)

BELOUSOV, B.

In the depths of the earth. Priroda Bulg 11 no. 1:121-123 Ja-F 62.

1. Chlen korepondent na Akademiiata na naukite na SSSR.

BELOUSOV, B.

Inspection of the creative work of Siberian radio amateurs.
Radio no.9:6-7 S '63. (MIRA 16:12)

1. Chlen Novosibirskogo oblastnogo radiokluba Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.

BELOUSOV, B.

Display of the creative work of Siberian radio amateurs. Radio no.10:3-4 O '64. (MIRA 18:2)

BELOUSOV, B.; KONSTANTINOV, A.

All-Union Spartakiada. Radio no.4:9 Ap '64. (MIRA 17:5)

1. Vneshtatnyy korrespondent zhurnala "Radio" (for Belousov).
2. Zamestitel' nachal'nika Moskovskogo gorodskogo radiokluba Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu (for Konstantinov).

KOMISSARCHIK, M.; KONSTANTINOV, A.; BELOUSOV, D.; [illegible]

The Third All-Union Spartakiada. Radio no.7:8 '66.

1. Rukovoditel' samodeyatel'nogo radioklubu, Kalinkovichi, Gomel'skoy oblasti (for Komissarchik). 2. Vneshtatnyy korrespondent zhurnala "Radio" (for Belousov).

KUVALDIN, B.I.; BELOUSOV, B.A.

Interesting research. Put' i put.khoz. 8 no.3:14 '64. (MIRA 17:3)

BELOUSOV, B.

From the secrets of the bowels of the earth. Priroda Bulg
13 no.4:90-92 Jl-Ag '64.

1. Corresponding Member of the Academy of Sciences of the U.S.S.R.
Priroda Bulg 13 no.4:90-92 Jl-Ag '64.

28419
S/169/61/000/007/086/104
A006/A101

3,1810

AUTHORS: Belousov, B.G., Moiseyev, B.S.

TITLE: Preliminary results of visual observations of auroras polaris on drifting stations SP-6 and SP-7 during 1958 - 1959

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 7, 1961, 35, abstract 7G245 (V sb. "Issled. polyarn. siyaniy, no. 4", Moscow, AN SSSR, 1960, 25-28, English summary)

TEXT: Data from observations made it possible to determine the diurnal run of the probable occurrence of auroras. During the whole period investigated the auroras were mainly located at the southern section of the horizon. The drift of station "SP-6" passed approximately through the location zone of 4 - 8 hours isochrones for the commencement of the early maximum of magnetic disturbances. The 6 - 8 hours isochrones of disturbances on the drift longitudes of station "SP-6" cross the assumed second zone of auroras polaris. The near-midday maximum of the probable appearance of aurora polaris observed at station "SP-6", was obviously caused by the existence of a second zone of aurora. The possibility of a second zone in the circumpolar region was also confirmed by

Card 1/2